



Investing for the Future with Every Commitment

Global Cleantech Finance Challenges

Prepared for Green
Finance Round Table

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CALIFORNIA

1200 Prospect Street
Suite 200
La Jolla, CA 92037

+1 800 900 9181

MASSACHUSETTS

222 Rosewood Drive
3rd Floor
Danvers, MA 01923

+1 800 900 9181

NEW YORK

140 Broadway
46th Floor
New York, NY 10005

+1 800 900 9181

SINGAPORE

30 Cecil Street
#14-10A Prudential Tower
Singapore 049712

+65 6232 2379

WWW.PCGAM.COM



About Us



PCG ASSET MANAGEMENT IS DEDICATED TO PRIVATE EQUITY¹

- Customized solutions
- Institutional approach
- Top-quartile performance

- We have committed or advised upon the commitment of over \$42 billion since the establishment of our private equity program in 1989
- Customized investment solutions exclusively focused on private equity
- Investment planning and portfolio management, investment research and transaction execution, portfolio monitoring and reporting
- Advisory or discretionary arrangements
- Fund investments (primary or secondary), co-investments, direct investments
- Large, middle-market and small buyout; venture capital; distressed; mezzanine; credit; clean energy and technology; infrastructure
- Deep-pocket institutional clients with a long-term focus
- Global operations in California, Massachusetts, New York, Frankfurt, and Singapore

¹ References to PCG Asset Management herein include its predecessor, Pacific Corporate Group LLC. Data includes discretionary and advisory partnership commitments through December 31, 2008. (as of 16 October 2009). Past results may not be indicative of future performance.



- Primary fund investments
- Secondary fund investments
- Co-investments

Services and Solutions

Advisory Mandates

- Primary and secondary fund investments
- Direct and co-investments
- Investments in GPs
- Portfolio restructuring, risk management and other analytics

Discretionary Mandates

- Primary and secondary fund investments
- Direct and co-investments

Funds of Funds

- Primary and secondary fund investments
- Direct and co-investments

Investment Capabilities

Research and Transaction

- Global fund coverage, with co-investment and direct investment expertise

Portfolio Management

- Portfolio construction, asset allocation and portfolio rebalancing

Monitoring and Reporting

- Post investment portfolio monitoring and analytics and reporting



The PCG AM Clean Energy and Technology Group

PCG AM's Clean Energy and Technology Group oversees almost \$1 billion across three initiatives



PCG AM is one of the earliest and largest investors in clean energy and technology and has deep experience and expertise

CalPERS Environmental Technology Program \$200 million

- 2004 CalPERS Board directive allocating \$200 million to invest in more efficient and less polluting environmental technology solutions
- PCG Asset Management selected as non-discretionary investment advisor
- Primary Objective: attractive, long-term, risk-adjusted returns

Kuwait Petroleum Company New Energy Technology Program (KPC NET) \$100 million

- KPC NET was formed in 2004 as a result of a KPC Board decision to obtain exposure to the alternative energy space, and KPC Energy Venture Inc (KPC EVI) was formed as an investment vehicle for the NET investment program
- The PCG AM team created KPC EVI which includes an angel fund, fund-of-funds and direct investment fund
- KPC EVI has a total approved investment amount of US\$100 million

Clean Energy and Technology Fund I \$600 million

- PCG AM created a new investment vehicle in 2006 for institutional investors to invest in the clean energy and technology sector
- Investment strategy includes fund investments and co-investments
- PCG Asset Management serves as discretionary investment manager
- Investors: CalPERS and the New York City Retirement Systems

PCG AM has a large investment presence
in the global clean energy and technology
space



The Clean Energy and
Technology Group started
working with institutional
investors in 2004 to build
cleantech investment
programs

CLEAN ENERGY AND TECHNOLOGY GROUP OVERVIEW

- Managing a significant percentage of all private equity invested in the cleantech space
- Deep experience building and managing clean tech investment programs for institutional investors
- Anchor investor in many of the top-tier global clean energy and technology funds
- Invested in 27 top-tier global cleantech funds ranging from venture to private equity-type infrastructure
- Invested directly in 15 cleantech companies around world
- Over 200 cleantech companies in overall portfolio by July 2010



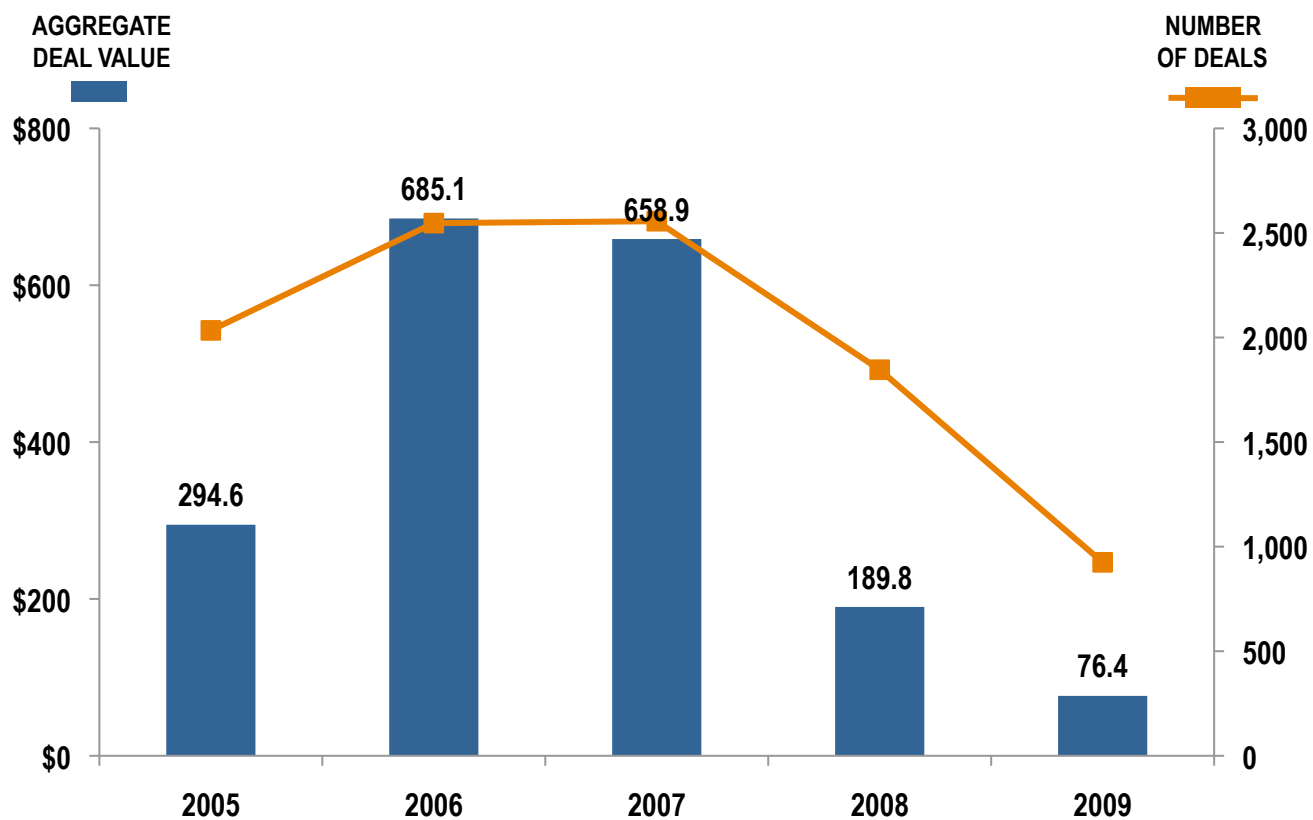
Private Equity and Cleantech



The recession
dramatically reduced
private equity
investment

Global Private Equity Investments

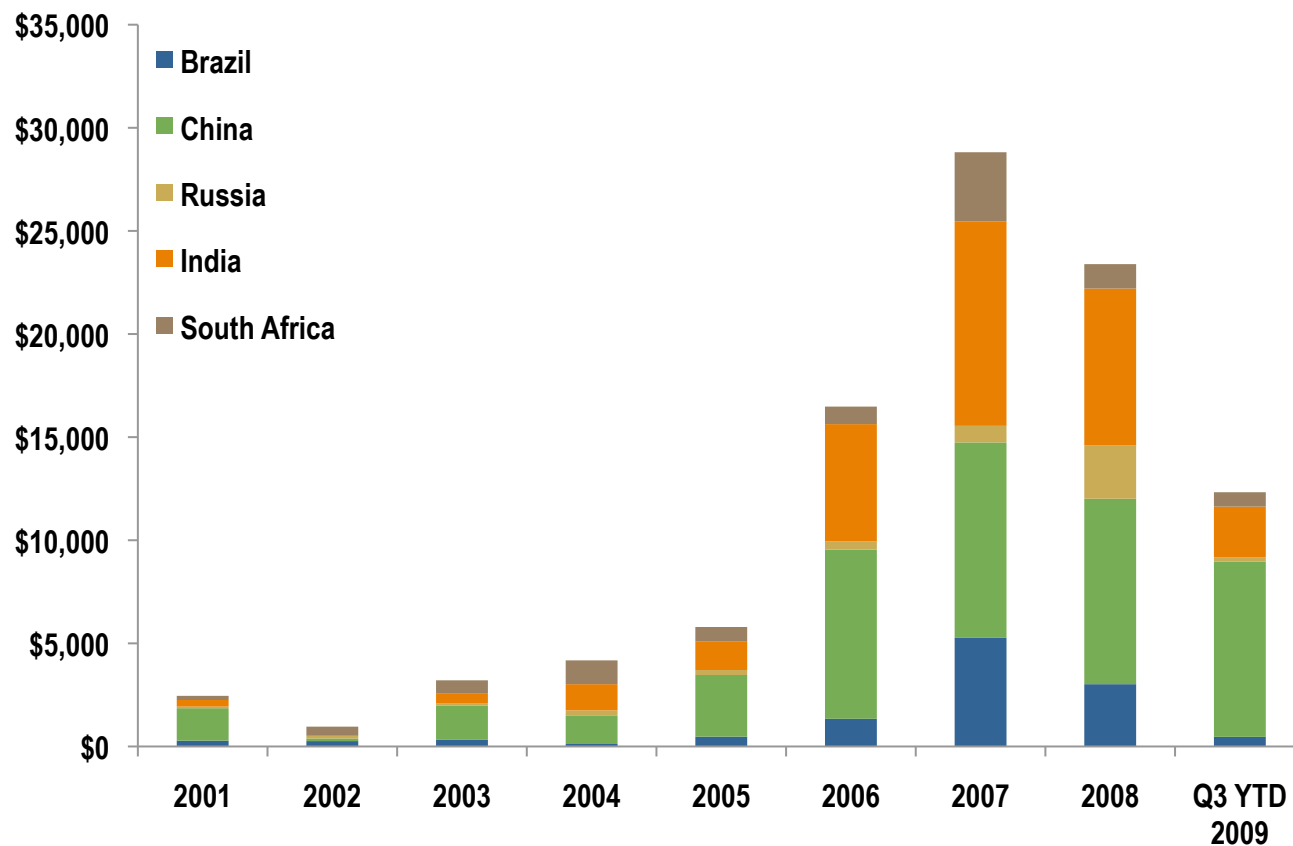
Number of Value and Deals by Year, \$ Billion





Investment in India and
China remained strong
through the recession

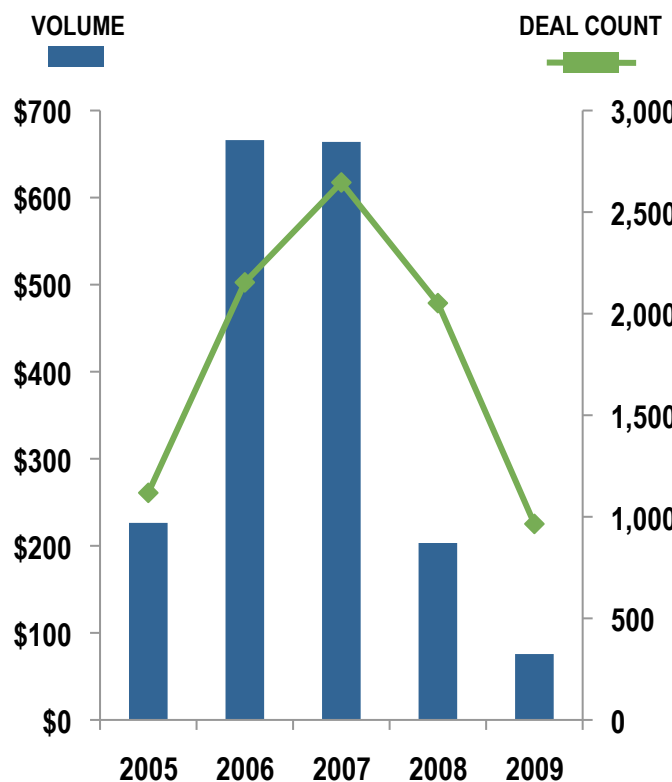
Investment by Country \$ Million





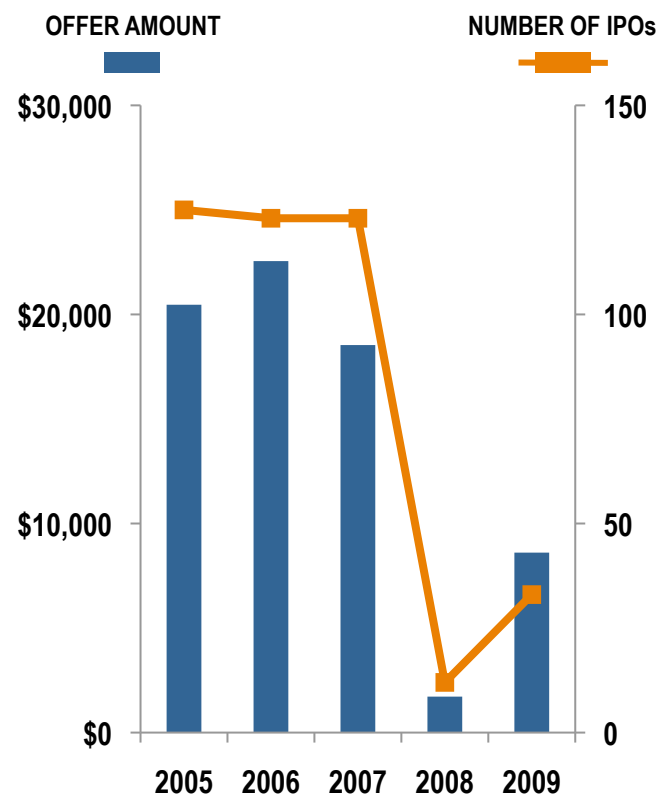
Global M&A and IPO
markets still need to
recover—2009 activity
driven by China and India

Global Private Equity-Backed M&A Activity \$ Billion



Source: Bloomberg.

Global Private Equity-Backed IPOs \$ Million



Source: ThomsonReuters.



The Future

- Increased use of private equity around the world—globalization of the business
- Global institutional investors need private equity to meet return requirements
- Big buy-out firms and financial engineering out
- Premium on private equity managers who can create fundamental new value in their investments

The Global Energy Challenge & Opportunity



Meeting global energy demand growth within a framework of sustainability is a fundamental global challenge.

- Forecasted demographic and economic growth trends lead to the unavoidable conclusion that fundamental demand for energy will increase substantially over the next two decades
 - Global population growth, urbanization, middle class expansion, and the electrification of economies are key drivers of this evolution
 - Approximately \$20 trillion of capital investment will be required to meet these needs
- These circumstances require political, corporate, and investment decisions to be made within the context of catalyzing and supporting global economic growth in a sustainable framework
- Private investment, combined with public policy, that stimulates technological innovation and broad deployment of the clean energy and technology value chain is the critical driver of this emerging framework



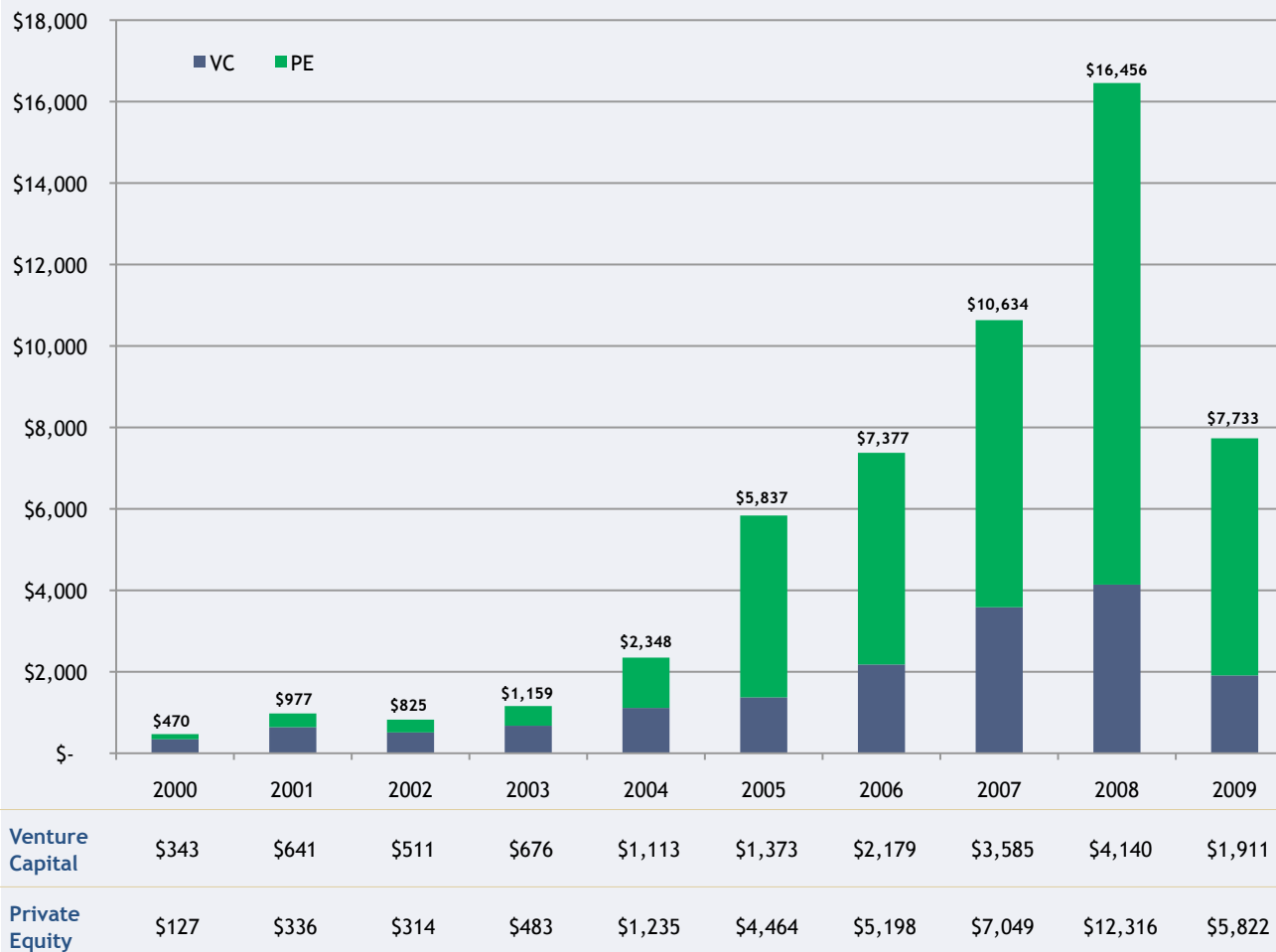
Markets are looking for solutions that are more efficient and less polluting than existing products, services or technologies.

GLOBAL ENERGY CONDITIONS	PUBLIC POLICY DRIVERS	EVOLVING TECHNOLOGY	ENVIRONMENTAL AWARENESS
<ul style="list-style-type: none">• Energy related commodity price levels & volatility• Demand growth• Reserve constraints• Resources in politically complex geographies• Ageing infrastructure	<ul style="list-style-type: none">• International agreements• Regulatory mandates and incentives• G20 stimulus• Energy independence & security• “Green Jobs”	<ul style="list-style-type: none">• Technological innovation• Maturing technologies catalyzing adoption• Relative cost differential being reduced• Research & development support	<ul style="list-style-type: none">• Climate change risks & opportunities• Impact of demographic trends• Corporate and public sectors developing environmental strategies• Water constraints

Investment has scaled rapidly in recent years reflective of the strong underlying market drivers.

Venture capital and private equity investment in the clean energy sector have grown from \$470 million in 2000 to \$16.0 billion in 2008, and despite falling to \$7.7 billion in 2009, still represents a 37% CAGR over the last ten years.

SECTOR FOCUSED PRIVATE EQUITY & VENTURE CAPITAL INVESTMENT (\$MM)

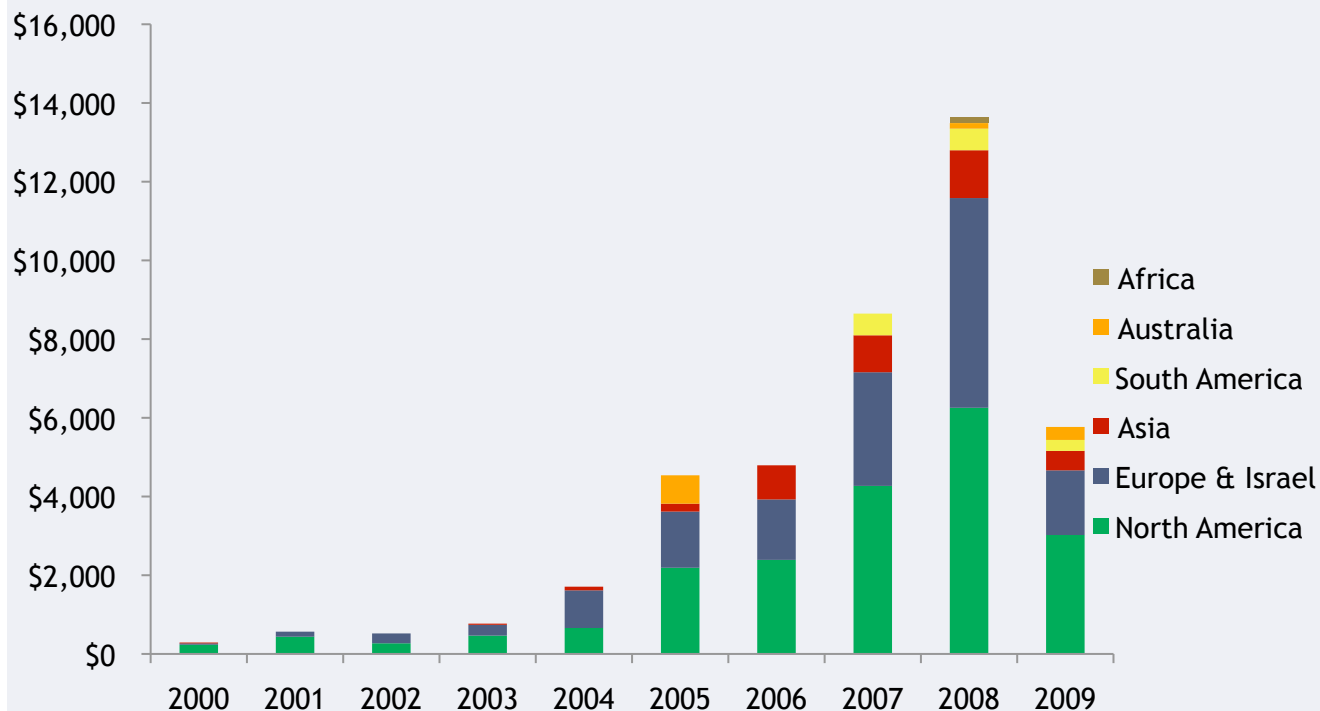




Driven by public policy incentives, North America and Europe have received the majority of capital investment.

Policy development in all geographies will be a critical catalyst for private capital flows.

ANNUAL SECTOR FOCUSED PRIVATE EQUITY & VENTURE CAPITAL INVESTMENT BY REGION (\$MM)





The Future

- Rapid increase implementation of cleantech in China, India, Brazil
- China becoming a major force in cleantech---buying technology in the U.S. and Europe and becoming a manufacturing power
- India becoming a major new market
- U.S. still the center of new technology development and innovation



The U.S. government can help drive coordination of regulatory policy among the G20

Challenge

Current lack of coordination in regulatory policy between the U.S. and Europe and within Europe

Issues

- We have a global financial and private equity market, and governments need to coordinate regulatory policy to insure smooth operations
- Need to provide predictable, clear ground rules

Challenge

Increased regulatory oversight and reporting requirements for the private equity sector in Europe

Issues

- While some increased regulation may be needed for derivatives, proposed regulations impact the entire private equity sector
- Increased regulation will make it more difficult for all U.S. private equity firms to operate in Europe



Challenge

Lack of accessibility for private equity investors to the China cleantech market

The U.S. government can
help open the China
cleantech market

Issues

- Market size of \$500 billion to \$1 trillion by 2013 (15% of GDP)
- China is buying our clean technologies, but limiting our ability to make private equity investments in China
- Approximately 20 different regulatory bodies at national level
- Clarify regulatory policies and enforce them consistently